



Serial No. 09/089,698  
Docket No. LE9-97-123  
(51832.00/4665.0)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Benjamin A. Askren, et al.  
Serial No.: 09/089,698  
Filed: 06/03/1998  
For: INK JET CARTRIDGE STRUCTURE  
Examiner: M. Brooke  
Group Art Unit: 2853

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REQUEST TO REINSTATE APPEAL AND  
APPELLANTS' SUPPLEMENTAL BRIEF ON APPEAL

Box: AF  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This Request to Reinstate the Appeal and Appellants' Supplemental Brief on Appeal under 37 C.F.R. §1.193(b)(2)(ii) is filed in triplicate in response to the non-final Office Action mailed on April 10, 2001.

REAL PARTY IN INTEREST

The real party in interest is Lexmark International, Inc., 740 New Circle Road, N.W., Lexington, Kentucky 40550.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1-22 and 25-39 are in the case and have been rejected five times. Claims 23-24 were cancelled. In the Office action dated April 10, 2001, to which this Supplemental Brief is directed, Claims 1, 4-5, 10-12, 32, 34-35 and 38 were rejected

under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,552,816 to Oda et al. in view of U.S. Patent No. 4,689,659 to Watanabe. Claims 2-3 and 33 were rejected under 35 U.S.C. § 103 as being unpatentable over the '816 patent to Oda et al. in view of the '659 patent to Watanabe and further in view of U.S. Patent No. 5,066,964 to Fukuda et al. Claims 6- 7 and 36-37 were rejected as being unpatentable over the '816 patent in view of the '659 patent and further in view of U.S. Patent No. 5,426,458 to Wenzel et al. Claim 8 was rejected as being unpatentable over the '816 patent in view of the '659 patent and further in view of U.S. Patent No. 5,079,189 to Drake et al. Claim 9 was rejected as being unpatentable over the '816 patent in view of the '659 patent and further in view of U.S. Patent No. 5,834,689 to Cook. Claims 13-14 and 17-18 were rejected as being unpatentable over the '816 patent in view of the '659 patent and further in view of U.S. Patent No. 4,755,836 to Ta et al. Claims 15-16 were rejected as being unpatentable over the '816 patent in view of the '659 patent and the '836 to Ta et al. and further in view of the '964 patent to Fukuda et al. Claims 19 and 20 were rejected as being unpatentable over the '816 patent, in view of the '659 patent and the '836 patent and further in view of the '458 patent. Claim 21 was rejected as being unpatentable over the '816 patent in view of the '659 patent and the '836 patent, and further in view of the '189 to Drake et al. Claim 22 was rejected as being unpatentable over the '816 patent in view of the '659 patent and the '836 patent and further in view of the '689 patent. Claims 25-28 and 31 were rejected as being unpatentable over the '816 patent in view of the '836 patent and the '964 patent and U.S. Patent No. 5,084,713 to Wong. Claims 29-30 were rejected as being unpatentable over the '816 patent in view of the '836 patent and the '964 patent and further in view of the '458 patent. Claim 39 was rejected as being unpatentable over the '816 patent in view of the '659 patent and further in view of the '713 patent.

Reference is made to the Appendix containing the Claims on Appeal as set forth in Appellants' brief filed January 3, 2001.

### STATUS OF AMENDMENTS

No amendments were filed subsequent to the Final Office Action on October 12, 2000, and no amendments were filed in response to the Office Action Dated April 10, 2001. In the Office Action dated April 10, 2001, the finality of the rejection of the claims in the October 12, 2000 Office Action was withdrawn and a new ground of rejection entered.

During the preparation of this Supplemental Brief, Appellants noticed an inadvertent typographical error in line 11 of Claim 32. The word "form" should be "from" as set forth in original Claim 32, line 10 thereof.

### SUMMARY OF THE INVENTION

Reference is made to the Summary of the Invention in Appellants' brief filed on January 3, 2001.

### ISSUES

Reference is made to the Issue on Appeal set forth in Appellants' brief on filed on January 3, 2001.

### GROUPING OF CLAIMS

Reference is made to the Grouping of Claims set forth in Appellants' brief on filed on January 3, 2001.

### ARGUMENT

In the non-final Office Action dated April 10, 2001, Claims 1-22 and 25-39 were rejected as being obvious over a combination of references. As will be evident from the following discussion, the rejection is not well taken.

There is absolutely no motivation in the references to select and combine the specific elements from the references which are combined by the Examiner in order to provide Appellants' invention. The Examiner has merely engaged in hindsight reconstruction of Appellants' invention from the references using Appellants' disclosure

as a guide without finding the requisite motivation in the references to make the combination. This new ground of rejection has the same motivational deficiencies as all of the other rejections. It is unclear how such a prolonged effort by the Patent Office to search endlessly for references to be used to reject the claims in this application does anything to further the goal of helping Appellants obtain a patent. Accordingly, Appellants hereby request that this appeal be heard at the earliest convenience and that the practice of needlessly prolonging the prosecution of an application by continuing to cite references which are no better than references cited initially be discouraged.

The Rejection of Claims 1-22 and 25-39 Over the Combined References is in Error.

A. Claims 1, 4-5, 10-12, 32, 34-35 and 38 are Distinguished over the Cited References.

In the Office Action, Claims 1, 4-5, 10-12, 32, 34-35 and 38 were rejected over U.S. Patent No. 5,552,816 to Oda et al. in view of U.S. Patent No. 4,689,659 to Watanabe. Claims 2-3, 6-9, 13-22, 33, 36-37 and 39 were rejected over the '816 patent and '659 patent in combination with one or more additional references. Claims 25-31 were rejected over the '816 patent in combination with three other references. The rejections are in error because there is no motivation in the references for making the modifications to the references which are required to obtain the claimed invention.

U.S. Patent No.5,552,816 to Oda et al. is directed to an ink jet cartridge and ink jet recording apparatus in which a change in pressure of the ink inside the ink discharge nozzles in the head cartridge is reduced. The invention is said to solve the problem of the need for a large space in the periphery of the lower portion of the head carriage for arrangement of constituent elements. According to column 3, lines 12-16, the invention of the '816 patent improves "... the efficiency of the use of the ink without increasing the plane shape of a head carriage." This object is accomplished by providing an ink tank "... having a shape such that a horizontally sectional area of the ink tank increases from a lower portion to an upper portion thereof, . . ." (Col. 3, lines 28-30 of

the '816 patent). According to column 8, lines 45-49 of the '816 patent, "The structure of the ink-jet recording head 16 per se does not constitute the gist of the present invention. . . . various conventionally know structures can be used as the structure. . . ."

What is manifestly absent from the '816 patent is any description, suggestion or motivation to increase the peripheral size of the head 16 by adding cooling fins thereto. In fact, increasing the head size by adding fins would defeat the advantages the invention of the '816 patent is said to provide. Furthermore, the '816 patent leads one skilled in the art to use a "conventional head structure." None of the references found in any of the office actions rejecting the Appellants' claims suggest cooling fins on one or more of the side walls of the substrate holder for convectively removing heat from the substrate holder. Hence, it cannot be said that the suggestion in the '816 patent to use a conventional head suggests modification of the head to include fins.

When determining whether or not a reference suggests the claimed invention, the reference should be considered as a whole. Portions of the reference which argue against or teach away from the claimed invention must also be considered. Bausch & Lomb, Inc. V. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 230 USPQ 416, 420 (Fed. Cir. 1986).

Because the '816 patent suggests only the use of conventional heads, there is nothing in the '816 patent with regard to a substrate holder having one or more locator wells, ink feed slots in the base of the wells and chambers on an opposing side of the holder from the wells.

Recognizing the deficiencies of the '816 patent to suggest Appellants' invention, the Examiner cites the '659 patent to Watanabe. The '659 patent is directed to use of a Peltier-effect device to heat or cool a semiconductor device. The semiconductor device is said to be surrounded by a "cylindrical thermal insulation" material such as sponge, cork or urethane. The Peltier-effect device and thermal insulation are said to be embedded in a block-shaped heat sink so that heat transmitted from the semiconductor

device to the cooling Peltier-effect device is absorbed by the heat sink. (See column 2, lines 42-61 of the '659 patent). As shown in Figs. 1 and 3 of the '659 patent, only the Peltier-effect device 4 is in contact with the heat sink 7 or 13 and the semiconductor device is insulated from the heat sink.

It is also said that the Peltier-effect device may be used as a heater in, which case the heat sink and/or fins may be dispensed with. (Col. 3, lines 44-56 of the '659 patent). The use of fins to cool a Peltier-effect device was also described in U.S. Patent No. 4,291,421 to Hara et al. As set forth in Appellants' brief, page 8, filed on January 3, 2001, it is improper to select only the heat sink and fins when the patent calls for the use of a heat sink and fins in combination with a Peltier-effect device and insulation between the semiconductor device and the heat sink. Hence, Appellants do not see how the '659 patent can be properly said to be combined with the '816 patent to provide the claimed invention. No motivation to combine the '816 patent with the '659 patent to provide Appellants' invention has been shown.

It also is improper to dissect the references to extract portions of the teachings with regard to cooling a semiconductor device or chip while ignoring the teachings of the references as a whole with regard to the aspects being combined. There simply is nothing in the references to suggest the selective combination of portions of the references to provide the claimed invention and for this reason alone, all of the rejections applying the combination of the '816 and '659 patents are improper and should be reversed.

It is clear that there must be more than simply itemizing selected elements in the prior art and combining the elements to provide Appellants' invention. As the court stated in Environmental Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983), "... virtually all [inventions] are combinations of old elements." Identification of the elements in the prior art is not sufficient, however, to negate patentability, otherwise few patents would ever issue.

"To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." In re Rouffet, 47 USPQ2d 1453, 1457, 1458 (Fed. Cir. 1998). The "... suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness." In re Rouffet, Ibid. at 1458.

In all of the rejections, the examiner has failed to show motivation to combine the references in the manner they are combined.

"To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction -- an illogical and inappropriate process by which to determine patentability. *W.L. Gore & Assoc. v. Garlock, Inc.* , 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made. *Interconnect Planning Corp. v. Feil* , 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985)." Sensonics Inc. v. Aerosonic Corp., 38 USPQ2d 1551, 1554 (Fed. Cir. 1996).

When the references are in the same field as that of Appellants' invention, the test for selecting specific teachings to combine, "... must still be met by identification of some suggestion, teaching, or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention." Furthermore, evidence that supports, rather than negates patentability must also be considered. In re Dance, 48 USPQ2d 1635, 1637, 1638 (Fed. Cir. 1998).

Even if the references were found to be properly combined, it is not clear how the combination would provide Appellants' invention. The '816 patent requires use

of a conventional print head, and the '659 patent requires a combination of a Peltier cooler, heat discharge fin and heat sink to cool a semiconductor device. Hence the combination would require a heat sink, Peltier cooler and fin which would increase the size of the recording head of the '816 patent. Appellants' provide cooling by making the entire substrate holder out of a heat-conducting member containing fins. Accordingly, a Peltier cooler is not required as set forth in the combined references.

It is also submitted that the references, alone or in combination, fail to teach or suggest one or more locator wells each having a well base with at least one ink feed slot therein and a chamber on the opposing side of the carrier from the locator well. These element are not found in the combined cited references. Furthermore, the planar surface devoid of fins for containing contact pads for electrical contact from a printer as set forth in Claims 32-39 is not found in the cited references. Accordingly, the rejection of Claims 1, 4-5, 10-12, 32, 34-35 and 38 should be reversed.

B. Claims 2-3 and 33 are Patentably Distinguished Over the Cited References. *Metel*

Claims 2 and 3 depend from Claim 1 and Claim 33 depends from Claim 32. Claims 2-3 and 33 are patentable over the cited references for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over the '816 and '659 patents. Claims 2-3 and 33 are directed to a metal substrate holder.

As set forth above, the '816 patent calls for use of a conventional head structure. If the structure described in the '964 patent were adaptable for use in the '816 patent this combination would still not provide all of the elements of the claimed invention and would require other elements not required by the appealed claims. The '964 patent to Fukuda et al. is directed to cooling a substrate using a liquid flowing through a liquid path in a heat-capacity member contacting the substrate. (See column 4, lines 4-6 and column 5, lines 4-17 of the '964 patent). Thus, combining the '964 patent with the '816 patent would require the head unit have a liquid flowing through a liquid path in the



heat sink to effect cooling. A liquid flow path for cooling the heat sink is not required by the appealed claims.

The requirement of a liquid path in the heat-exchange member is also substantially different than using a Peltier-effect device as described in the '659 patent since the '964 patent requires both liquid circulation in contact with the heat-capacity member and contact between the chip and the heat-capacity member. The '964 patent thus solves a similar problem in a different way than the '659 patent and thus cannot properly be said to be combinable with other components of the '659 patent to provide the claimed invention. The two solutions are mutually exclusive and thus would not provide a substrate holder having cooling fins on a side wall thereof, an ink well and a chamber opposite the ink well.

It is submitted that the references, alone or in combination, fail to teach substrate locator wells, a slot in the well base of each well and cooling fins on at least one side wall of the substrate holder for convectively cooling the substrate holder. Accordingly, the rejection of Claims 2-3 and 33 should be reversed.

C. Claims 6-7 and 36-37 are Patentably Distinguished Over the Cited References.

Claims 6-7 depend from Claim 1 and Claims 36 and 37 depend from Claim 32 and are patentable over the cited references for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over the '816 and '659 references. Claims 6-7 and 36-37 are directed to a substrate holder containing a coating or layer of poly(xylylene) thereon.

The '458 patent to Wenzel et al. is combined with the foregoing references and is cited only for use of a poly(xylylene) coating. The '458 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention because the '458 patent does not suggest or describe the claimed elements set forth in detail above. The '458 patent is directed to use of a poly-p-xylylene coating on a nozzle plate rather than on a substrate holder. Also, the '458 patent fails to suggest or describe a substrate

holder containing locator wells on one side thereof, ink feed slots in the wells, a chamber on the opposing side thereof and one or more side walls containing cooling fins. The rejection of Claims 6-7 and 36-37 is improper and should be reversed for all of the foregoing reasons.

**D. Claim 8 is Patentably Distinguished from the Cited References.**

Claim 8 depends from Claim 1 and is patentable over the cited references for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over the '816 and '659 references. Claim 8 is directed to a substrate holder made of a material containing a high content of carbon fibers or graphite.

The '189 patent to Drake et al. is combined with the foregoing references and is cited only for use of a heat sink made of graphite. In particular, the '189 patent is directed to providing subunits for full width RIS or ROS arrays and is not specifically directed to ink jet printheads. There is nothing in the '189 patent with regard to a substrate holder having wells, with ink feed slots in the wells and chambers on an opposing side of holder from the well. There is also nothing in the '189 patent with regard to the substrate holder having one or more side walls containing cooling fins. Hence, the '189 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. It is therefore requested that the rejection of Claim 8 be reversed for all of the foregoing reasons.

**E. Claim 9 is Patentably Distinguished from the Cited References.**

Claim 9 depends from Claim 1 and is patentable over the cited references for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over the '816 and '659 references. Claim 9 is directed to a substrate holder made of a metal-ceramic composite material.

The '689 patent to Cook is combined with the foregoing references and is cited only for use of a composite matrix material used as a package for housing an electrical device. It is said in the '689 patent that the composite structure can be used as a heat sink. However, there is nothing in the '689 patent with regard to ink jet printers and no suggestion to use the composite material as a heat sink material in an ink jet printer. Nevertheless, even if the '689 patent were found to suggest using a composite material as a heat sink, the '689 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. The '689 patent does not suggest or describe the substrate holder having locator wells, ink feed slots in the locator wells, a chamber on the opposing side of the holder from the wells and one or more side walls containing cooling fins. The rejection of Claim 9 is in error and should be reversed for all of the foregoing reasons.

F. Claims 13-14 and 17-18 are Patentably Distinguished from the Cited References.

Claim 13 depends from Claim 1 and Claims 17 and 18 depend from Claim 14. Claim 13 is directed to carriage positioning devices on the side walls of the substrate holder and Claim 14 is directed to a method for making a print cartridge structure containing fins and at least two alignment devices adjacent one of the side walls. Claims 13-14 and 17-18 are patentable over the cited references for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over the '816 and '659 references.

The '836 patent to Ta et al. is combined with the foregoing references and is cited only for use of a alignment devices. According to the '836 patent, the alignment features or registration means are "provided on the front 22 of the cartridge and on the inside of the face plate 16." (See column 4, lines 60-63 of the '836 patent). This does not suggest that carriage positioning devices be adjacent one of the side walls of the substrate holder as called for in Claims 13-14 and 17-18 and Fig. 3A of the specification. The '836 patent also does not suggest or disclose a substrate holder having wells, ink feed slots in

the wells, a chamber on the opposite side from the wells and one or more side walls containing cooling fins. Accordingly, the '836 patent fails to cure the deficiencies of the other references to provide Appellants' claimed invention. The rejection of Claims 13-14 and 17-18 is improper and should be reversed.

**G. Claims 15-16 are Patentably Distinguished from the Cited References.**

Claims 15-16 depend from Claim 14 and are patentable for the same reasons above that Claim 14 is patentable over the '816, '659 and '836 patents. Claims 15-16 are directed to a method for making a print cartridge from a metal. The substrate carrier includes a top surface containing one or more substrate locator wells, at least one ink feed slot in each well base, one or more chambers on the opposite side of the top surface, one or more side walls containing fins for heat removal and at least two alignment devices adjacent one of the side walls. An ink reservoir body is provided and attached to the substrate carrier. The print cartridge structure of the method is patentable over the cited references for the same reasons for the same reasons Claims 2-3 and 33 are patentable over the '816, '659 and '964 references.

The '836 patent to Ta et al. is combined with the foregoing references and are cited only for use of a alignment devices and a TAB circuit. Reference is made to the deficiencies of the '836 patent discussed above with regard to the rejection of Claims 13-14 and 17-18. This discussion is incorporated herein by reference thereto. The '836 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. The rejection of Claims 15-16 is in error and should be reversed.

**H. Claims 19-20 are Patentably Distinguished from the Cited References.**

Claims 19-20 depend from Claim 14 and are patentable over the cited references for the same reasons Claims 13-14 and 17-18 are patentable over the '816, '659

and '836 references. Claims 19-20 are directed to coating a substrate carrier with a layer of poly(xylylene).

The '458 patent to Wenzel et al. is combined with the foregoing references and is cited only for use of a poly(xylylene) coating. The '458 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. As set forth above, the '458 patent is directed to use of a poly-p-xylylene coating on a nozzle plate rather than on a substrate holder. Also, the '458 patent fails to suggest or describe a substrate holder containing locator wells on one side thereof, ink feed slots in the wells, a chamber on the opposing side thereof and one or more side walls containing cooling fins. The rejection of Claims 19-20 is improper for all of the foregoing reasons and should be reversed.

I. Claim 21 is Patentably Distinguished from the Cited References.

Claim 21 depends from Claim 14 and is patentable over the cited references for the same reasons Claims 13-14 and 17-18 are patentable over the '816, '659 and '836 references. Claim 21 is directed to making a substrate carrier from carbon fibers or graphite.

The '189 patent to Drake et al. is combined with the foregoing references and is cited only for use of a heat sink made of graphite. The '189 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. As described above, the '189 patent is directed to providing subunits for full width RIS or ROS arrays and is not specifically directed to ink jet printheads. There is nothing in the '189 patent with regard to a substrate holder having wells, with ink feed slots in the wells and chambers on an opposing side of holder from the well. There is also nothing in the '189 patent with regard to the substrate holder having one or more side walls containing cooling fins. The rejection of Claim 21 is improper and should be reversed.

J. Claim 22 is Patentably Distinguished from the Cited References.

Claim 22 depends from Claim 14 and is patentable over the cited references for the same reasons Claims 13-14 and 17-18 are patentable over the '816, '659 and 836 references. Claim 22 is directed to making the substrate carrier from a metal-ceramic composite material.

The '689 patent to Cook is combined with the foregoing references and is cited only for use of a composite matrix material used as a package for housing an electrical device. As set forth above, there is nothing in the '689 patent with regard to ink jet printers and no suggestion to use the composite material as a heat sink material in an ink jet printer. Nevertheless, even if the '689 patent were found to suggest using a composite material as a heat sink, the '689 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. The '689 patent does not suggest or describe the substrate holder having locator wells, ink feed slots in the locator wells, a chamber on the opposing side of the holder from the wells and one or more side walls containing cooling fins. Because the '689 patent is improperly combined with and does not cure the deficiencies of the other references to provide Appellants' invention, the rejection of Claim 22 should be reversed.

K. Claims 25-28 and 31 are Patentably Distinguished from the Cited References.

Claims 25-28 and 31 are directed to a metal nose piece structure having a top surface containing substrate locator wells, at least one ink feed slot in each well base and one or more chambers on an opposing side from the nose piece from the wells. One or more of the side walls of the nose piece which are attached to the top surface along the perimeter thereof contain fins for heat removal. Slots are provided along the perimeter of the side walls for attaching the nose piece to an ink reservoir. At least two alignment devices are provided adjacent one of the side walls. Claims 25-28 and 31 are patentable

over the '816, '836 and '964 patents for the same reasons Claims 15-16 are patentable over these references.

The '713 patent to Wong is combined with the '816, 836 and '964 references and is directed to a thermal ink jet system having an "... internal subsystem designed to cool the resistor assembly...." (See column 1, lines 65-68 of the '713 patent). According to the '713 patent, the support panel is modified to include a channel for ink flow and cooling of the substrate. (See column 2, lines 24-32 of the '713 patent). The '713 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention because the '713 patent does not suggest or describe cooling fins on a side wall of the nose piece, an ink feed slot in the well base of the nose piece and a chamber on the opposite side of the nose piece from the locator wells. As seen in Fig. 8 of the '713 patent, the channel 102 is on the same side of the support panel 50 as the substrate 12.

Furthermore, as set forth above, the '713 patent leads away from the combination of references. The '713 patent states in column 1, lines 47-50 that ".... attachment of a metal heat sink unit (e.g. a manifold) adjacent the resistor assembly..." has proven to be impractical from a technical and economic standpoint. It is clear that the '713 patent leads away from use of a conventional heat sink as called for in the '816 patent to Oda et al. Accordingly, the combination of references is improper and fails to provide all of the features and elements of Appellants' claimed invention. The rejection of Claims 25-28 and 31 should be reversed.

L. Claims 29-30 are Patentably Distinguished from the Cited References.

Claims 29-30 depend from Claim 25 and are patentable over the cited references for the same reasons Claims 25-28 and 31 are patentable over the '816, '964 and '836 patents. Claims 29-30 are directed to a nose pieced containing a coating or layer of poly(xylylene) thereon.

The '458 patent to Wenzel et al. is combined with the foregoing references and is cited only for use of a poly(xylylene) coating. The '458 patent does not cure the deficiencies of the other references to provide Appellants' claimed invention. The '458 patent is directed to use of a poly-p-xylylene coating on a nozzle plate rather than on a metal nose piece. Also, the '458 patent fails to suggest or describe a metal nose piece containing locator wells on one side thereof, ink feed slots in the wells, a chamber on the opposing side thereof and one or more side walls containing cooling fins. Thus the obviousness rejection of Claims 29-30 is improper and should be reversed.

M. Claim 39 is Patentably Distinguished from the Cited References.

Claim 39 depends from Claim 32 and is directed is to a substrate carrier wherein at least one side has notches for removably attaching an ink reservoir to the carrier.

Claim 39 is patentable over the '816 and '659 patents for the same reasons Claims 1, 4-5, 10-12, 32, 34-35 and 38 are patentable over these references. Likewise, Claim 39 is patentable over the '713 patent for the same reasons Claims 25-28 and 31 are patentable over the '713 patent. The rejection of Claim 39 is in error and should be reversed.

In conclusion, it is submitted that the Examiner has engaged in impermissible hindsight reconstruction of the invention, by selectively choosing portions of the references and combining the portions of the references to provide the claimed invention without one scintilla of motivation from the references themselves to make the specific combination. Furthermore, even if the references were combined as suggested by the Examiner, the combined references fail to provide all of the features and elements of the claimed invention. It is therefore requested that the rejections of Claims 1-22 and 25-39 be reversed and the case passed to allowance.



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Respectfully submitted,

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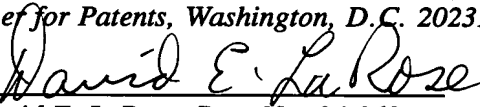
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on June 18, 2001  
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